

**BY ORDER OF THE COMMANDER  
SHAW AFB**

**AIR FORCE INSTRUCTION 11-301,  
VOLUME 1**



**SHAW AIR FORCE BASE  
Supplement**

**12 JANUARY 2015**

***Flying Operations***

**AIRCREW FLIGHT EQUIPMENT (AFE)  
PROGRAM**

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**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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Certified by: 20 OG/CC  
(Colonel Shaun R. McGrath)

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**Air Force Instruction (AFI) 11-301, Volume 1, Aircrew Flight Equipment (AFE) Program, 25 February 2009 and AFI 11-301, Volume 1 Aircrew Flight Equipment (AFE) Program, Air Combat Command Supplement, 23 April 2010 is supplemented as follows:** It establishes the 20 FW Aircrew Flight Equipment (AFE) program. It applies to 20 FW Pilots who fly in aircraft assigned to the 20 FW and all AFE personnel. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://my.af.mil/afrims/afrims/afrims/rims.cfm>. Contact supporting records managers as required

Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, Recommendation for Change of Publication; route AF Form 847s to 20 OSS/OSL, 554 Lance Ave, Shaw AFB, SC 29152-5044; route through your appropriate functional chain of command.

***SUMMARY OF CHANGES***

This document has been substantially revised and must be completely reviewed. This is a rewrite and must be reviewed entirely. It includes new AFE (AFSC 1P0X1) quality assurance guidance and local procedures on the new CSU-22/P Anti-G Garment.

**1.3.2.** The 20 OG/CC is the overall waiver authority for this supplement. Fighter Squadron Commanders will route waiver requests through the 20 OSS/OSL AFE Officer/Superintendent (AFEO/S) and 20 OSS/CC for approval. All higher headquarters waiver requests will be routed IAW the guidance provided in the parent AFI and ACC supplement.

1.4.2. Only the AFEO, AFES, or QA will contact HQ ACC/A3TO directly.

1.4.6.1. The 20 OSS/OSL will utilize the 20 OSS Unit Deployment Manager (UDM) Office/Intel section for Secure Internet Protocol Router (SIPR) account support.

1.4.7. All 20 FW AFE personnel will become members of the ACC AFE SharePoint at: and the 20 OSS/OSL AFE SharePoint at:.

2.10.8. 20 FW AFE personnel may be used for duties outside of their functional expertise (i.e., Unit Deployment Manager (UDM), Unit Training Manager (UTM), Base Honor Guard) for a period not to exceed 365 days. If at any time the 20 FW AFE manning drops below 90% assigned versus authorized personnel, all personnel assigned to external duties will be reassigned to the AFE flight. 20 FW AFE will only have Vehicle NCOIC as an additional duty in the Fighter Squadrons.

2.10.8.1. Squadron Commanders will provide a “ramp-rat” to assist AFE members in driving personnel to and from their designated areas and aircraft during extreme weather or during exercises. It is the squadron commander’s responsibility to ensure personnel are keeping up with their flight line driving requirements.

2.10.17. Pilot lockers will be opened/ventilated to allow airing of equipment after flight. The security of personal items left in lockers will not be AFE’s responsibility.

2.10.17.1. **(Added)** The AFE main work area is designated a limited access area. Combinations and keys to doors entering and exiting this area will be kept to AFE personnel only to ensure asset accountability and the safety of all visitors. At no time will a non AFE member be granted access codes or keys to enter and exit this area without the approval of the AFE NCOIC, AFE Superintendent, or Squadron Commander.

2.10.25.1. See AFE OI 11-1 for standardized survival vest configuration. Deviations to the locations of the pockets configuration are allowed based on an individual’s cockpit mobility; however, components must stay within the same pocket. (i.e., a pocket containing a flare, tourniquet and GPS may be moved to a different location on the survival vest, but the flare itself cannot be removed from the pocket and relocated to another one).

2.10.27. MC-1 Survival or Hook Blade Knives are located in the CSU-22/P or CSU-13B/P Anti-G Garment knife pocket.

2.10.27.1. **(Added)** When equipment is carried on commercial flights, the aircrew member is responsible for making sure the MC-1 Survival or Hook Blade Knife is packed with their checked luggage. Once the member’s destination is reached, they will ensure the knife is reinstalled into their g-suit by a qualified AFE technician. The entire g-suit may be packed in the checked luggage to avoid removing the knife.

2.10.28. It is the pilot's responsibility to ensure all gear and flying items are present at the squadron they are going to be flying with. This also includes all non AFE items such as but not limited to flight manuals, glasses, contact solution, flight gloves, pen holders, etc.

2.10.30. **(Added)** Helmets. JHMCS helmets are required for all flights. HGU-55/P helmets will be turned in to Aircrew Flight Equipment upon assignment to a fighter squadron and will be maintained as a component of the Aircrew Chemical Defense Ensemble. No mask will be maintained with the HGU-55/P helmet.

2.11.4. All AFE sections, with the exception of the QA office, will utilize digital TOs.

2.11.15.1. **(Added)** The following items are considered pilferable and will be controlled by serial number: Helmet Display Units (HDU), Aircrew Laser Eye Protection (ALEP), Global Positioning System (GPS), Evaders Night Vision Imaging System (ENVIS), Night Vision Goggles (NVG), Night Vision Goggle brackets, CRU-120's, AN/PRQ-7/A radios, and PRC-112 radios.

2.11.36. Every effort will be made to ensure "Redball" maintenance is not conducted on the flight line. Flight line dispatchable CTK's are not maintained by AFE sections. If a "Redball" situation should occur, an AFE technician will proceed to the applicable aircraft in an expedient manner. If repair is required the AFE technician will bring the item back to the AFE shop for proper troubleshooting and repair. This will ensure proper troubleshooting can be conducted with in-shop equipment and the affected part will be replaced.

2.12.1.1. The AFE Quality Assurance Program (QAP) will be used for AFE trends analysis reports. Procedures for using the AFE QAP will be outlined in the AFE QA Operating Instruction.

2.12.1.2. Acceptable Quality Levels (AQL) for personnel evaluations and equipment will be outlined in the AFE QA Operating Instruction.

2.12.1.2.1. **(Added)** Personnel Evaluation inspections will consist of individuals performing a specific task. QA Inspectors will conduct a minimum of 4 personnel evaluations per month.

2.12.3. The AFE QA trend program will be specified in the AFE QA Operating Instruction. When trends are noted the AFE QA will recommend corrective action and will assign an OPR/Office of Collateral Responsibility (OCR) until closed. AFE QA will provide monthly trend analysis to the OSS/CC, the AFE Flight Commander, and the AFE Superintendent. The OSS/CC will up channel trend analysis data to the OG/CC no less frequently than twice per year. Trend data will be maintained for two years.

2.12.3.1. A Quality Assurance Trend is a reoccurrence of a specific discrepancy or problem area. When a trend occurs it will be highlighted and corrective actions will be recommended. Recommendations will include briefing the trend to all applicable personnel and performing refresher training. An OPR/Office of Collateral Responsibility (OCR) will be assigned until item is closed. Specific definition of shop trends are as follows:

2.12.3.1.1. For Personnel Evaluations (PE) and Quality Control Inspections

(QCI) a trend is a discrepancy on the same step or inspection item that occurs three or more times within a 30 day period.

2.12.3.1.2. For Management Inspections (MI) and Special Inspections (SI) a trend is the same program discrepancy which occurs in two or more work centers within the same time period.

2.12.3.2. If a technician continues to repeat a specific discrepancy for two consecutive months, the section NCOIC will provide the technician with feedback and additional training if required. NCOICs will also document feedback/training provided in the technicians training record (TBA Journal Entry) and a Memorandum for Record (MFR). The MFR will be maintained for 12 months.

2.12.5. AFE QA will maintain records of all approved locally designed tools and equipment, including pictures or drawings and a description of the use for each item. (If pictures, drawings, or authorizations are not available, they will be re-accomplished). These records will be maintained in Quality Assurance Continuity Binder.

2.12.5.1. **(Added)** Section NCOICs will maintain a copy of all approved locally designed tools in their respective CTK binders. Master copies will be maintained by the AFE QA office.

2.12.9.1. **(Added)** Section NCOICs will use the approved IPI/CPI checklists located on the Shaw AFE SharePoint at:

2.14.5. **(Added)** Pilots will PCS from Shaw AFB with the appropriate Joint Helmet Mounted cueing System (JHMCS) equipment as outlined in the ACC JHMCS MOA.

2.15.11.2. **(Added)** All requests for local manufacture must be approved by the Aircrew Flight Equipment Superintendent or QA office personnel. Requests must be accompanied with a sample item (preferred) or technical drawing. The local manufacturing activity must fully document all requirements on the OSS/OSL Local Manufacture request form. Once approved, all pieces/parts will be ordered by the requesting activity and delivered once all items are in hand to the manufacturing activity.

2.15.11.3. **(Added)** Local manufactured items will be completed in order of receipt and as soon as mission and manning allows.

2.15.12.2. See Shaw AFE SharePoint at: for approved tracking of Local manufacture requests.

2.15.15.1. **(Added)** Work center specific local explosive safety program will be consolidated into one program pertaining to all 20 FW AFE sections maintained in the flight office. This allows for personnel to rotate freely between sections as needed on a daily basis.

2.15.19. Section NCOICs will conduct a self-assessment of their section within 60 days of being appointed as NCOIC and annually thereafter.

2.17.8.1. **(Added)** Upon arrival at the unit each aircrew member will drop off their flight equipment to the AFE section, schedule a day for fitting, and provide their measurements/sizes to the AFE section. A minimum of 48 hours is required between

dropping off equipment and fitting to allow time to inspect the equipment and obtain any extra equipment needed.

2.17.8.2. **(Added)** Each aircrew member will be given one complete day, without any other scheduled events, to conduct AFE fittings. Due to adhesive cure times on JHMCS equipment pilots must be scheduled a minimum for their fitting two days prior to their first scheduled flight. If a reschedule is required, at least 24 hours notice will be provided to the AFE section.

2.17.8.2.1. **(Added)** Fittings will include: JHMCS helmet, MBU-20/P mask, PCU-15B/P torso harness, CSU-22/P or CSU-13B/P anti-g suits, Over the Side (OTS) anti exposure suit, and AERPS equipment.

2.17.8.3. **(Added)** When out-processing, aircrew members will visit their respective AFE section to pick up their equipment/current inspection records.

2.17.8.3.1. **(Added)** The following items are permanently assigned to the aircrew member and will accompany them to their next assignment if equipment is used: JHMCS helmet without the Helmet Vehicle Interface (HVI) cable, HGU-55/P helmet, MBU-20/P mask, CSU-22/P and/or CSU-13B/P anti-g suit (fit without the anti-exposure suit), OTS anti-exposure suit, JHMCS visor.

2.17.11. **(Added)** Will not store food items in AFE or pilot equipment locker.

2.17.12. **(Added)** Will not store personal items in their AFE locker/equipment except in the designated area.

2.17.12.1. **(Added)** Aircrew members are warned that items carried in the lower leg pockets of the anti-G garment must not be bulky or sharp because death or injury could occur upon ejection during LL-01. These items will be removed from the pockets upon post-flight and placed in the designated area for the aircrew member's personal items.

2.17.13. **(Added)** Pilot's will not store ground chemical defense ensemble in their AFE locker.

2.17.14. **(Added)** All non-flyers receiving incentive flights will report to applicable AFE sections by the scheduling pilot or personnel no later than 48 hours prior to potential flight. This is to ensure equipment sizes and availability for wear and fit up.

2.18.1.1. **(Added)** Egress will remove and install parachutes and survival kits as a matched set. Parachutes and kits will never be removed and replaced individually. AFE will repack chute and kit sets so the inspection due dates fall within the same week.

2.18.1.1. 1 **(Added)** Survival kits and parachutes will not be repacked when remaining inspection is good for 45 days or more. These assets will remain in service to ensure equipment components that are time change items, meet their full service life. This will also ensure that equipment wear and tear from inspections is kept to a minimum.

2.18.1.1.2. **(Added)** Survival kits and parachutes meeting this requirement will not be accepted by the AO section. These assets can be put back on aircraft or

moved to aircraft that does not require additional inspection service time.

2.18.1.2. **(Added)** CRU-120s will be kept man-side and will not be stored on the aircraft to ensure max equipment accountability and inspection availability.

2.18.2.1. Eye exams will be conducted in conjunction with each individual's Physical Health Assessment (PHA). After PHA is complete the Public Health office will send the completed AF Form 422 to the AFES, which will state the individual is cleared to work on Night Vision Goggles. Documentation of this eye exam will be maintained in each section.

3.3.10. **(Added)** Equipment accounts are split up so each work center has a standalone account that includes chemical defense equipment and test/flight equipment. This will ensure each NCOIC has direct control over the equipment within their respective work center. These accounts will be designated by individual shop codes. The training equipment account, 255PE will be maintained by SERE.

3.3.10.1. **(Added)** A locally produced serial number listing of items listed on the CA/CRL will be maintained for inventory purposes in tab A of the equipment custodian binder. NCOIC's will take control of the equipment assigned to their section by signing a document listing the NSN and serial numbers of all equipment items stored in their section. These documents will be maintained in tab A.

3.3.10.2. **(Added)** NCOIC's are responsible for control of the equipment assigned to their section. AF Form 1297's, Temporary Issue Receipt, will be used if/when equipment is temporarily signed out to other AFE sections.

3.3.10.3. **(Added)** AFE sections lacking items will not take from other AFE sections without consulting with the losing sections NCOIC or Superintendent. An AF Form 1297 will be filled out and filed till the items are returned or replaced by the gaining AFE section. AFE sections caught procuring items without authorization from different work centers stock or mobility bins will be counseled.

3.3.10.4. **(Added)** Each section NCOIC will be designated as an equipment custodian and each section Assistant NCOIC will be designated as alternate equipment custodian on their sections respective accounts.

3.7.2.1.1. AO will use QA checklists to conduct QCIs. AO QI personnel will verify each item on the quality assurance checklist has been correctly completed. If no discrepancies are noted, QI's will sign and make copies of the checklist. The completed QA checklist will be filed with the documentation paperwork to include: Flight Equipment Records Management System (FERMS) and Integrated Maintenance Data System (IMDS). Equipment will then be placed back in the appropriate locker.

3.7.3. IPIs will be performed by current and qualified 1P071 (or equivalent) personnel. IPIs will be documented on certified IPI forms located on the AFE SharePoint . The form will remain on file until the next repack, repair, or aircraft transfer. IPIs will be performed during inspection and repack of parachutes, survival kits, life preservers, and night vision goggles.

3.7.5. All discrepancies must be corrected prior to the equipment being placed back in service. When possible, the original technician (inspector) will correct all discrepancies.

3.7.5.1. **(Added)** If original technician is not available to correct discrepancies before equipment is needed for flight it will be repaired and placed in service by another certified technician.

3.7.6.1. The monthly trend analysis report will be compiled by the QA office using the FERMS database.

3.7.6.2. **(Added)** Monthly training sessions on negative trends will be documented in the form of TBA journal entries for each individual.

3.8.3. AFE sections will etch tools with 9-digit tool identification numbers as stated in AFI 21-101\_COMBATAIRFORCESUP\_SHAWAFBSUP, *Aerospace Equipment Maintenance Management*, as follows:

3.8.3.1. **(Added)** SP05 (55 FS).

3.8.3.2. **(Added)** SP07 (77 FS).

3.8.3.3. **(Added)** SP09 (79 FS).

3.8.3.4. **(Added)** SP03 Aircraft Operations (AO).

3.8.3.5. **(Added)** The first four digits are the FE identifier for Aircrew Flight Equipment. Digits five and six are the CTK identifier, and digits seven, eight, and nine are for CTK with each section. (Ex. FEO5-01-001).

3.8.5. To prevent contamination, tools used to maintain AFE items will not be signed out for general purpose use.

3.9.1.2.1. **(Added)** The ACC/Shaw combined TO options list is posted on the Shaw AFE SharePoint at:

3.9.1.4. The AFE Superintendent is the OPR on all AFE related proposed TO changes. All proposed TO changes will be routed through the AFE QA office to the AFE Superintendent for final approval. Once the AFE Superintendent has reviewed/approved the proposed TO change the completed AFTO Form 22 will be routed to the base AFTO 22 office (20 MXG/MXQP) for processing.

3.10.4. **(Added)** Piddle Pack/Aircrew relief bags will not be disposed of in AFE section trash cans. Instead, Fighter Squadron leadership will determine the safest and most efficient way to discard the piddle packs/aircrew relief bags.

4.1.3.1. **(Added)** Items requiring 24 month task evaluations are as follows: Advanced Concept Ejection Seat (ACESII) personnel recovery parachutes (inspect/pack/rig 4 line release), ACESII drogue system (inspect/rig/pack), PCU-15B/P torso harness (fit/maintain), HGU-55A/P JHMCS helmet (fit/maintain), MBU-19/P mask (fit/maintain), CQU-7/P blower (maintain), MXU-835/P intercom (maintain), LPU-38/P life preservers (fit/inspect/pack), LRU-16/P life rafts (inspect), PRC-112 (maintain/update software/program loading operations/collect and update almanac), AN/AVS-9(V) night vision goggles (maintain), AIRACE survival vest



(fit/maintain), ACESII survival kits (maintain) and ACCA procedures (setup/teardown/process equipment/process aircrews and manage-\*7-level only).

4.2.4.3.1. **(Added)** Supervisors/Trainers will document training progress via TBA journal entries, using the following intervals.

4.2.4.3.2. **(Added)** Weekly for technicians in Upgrade Training no matter the skill level.

4.2.4.3.3. **(Added)** Monthly for technicians in qualification training.

4.2.4.3.4. **(Added)** Quarterly for all others.

8.2.2.1.1. **(Added)** Pre-deployment, deployment, and employment checklists are located in attachments 4 thru 6. All assigned AFE personnel will use these checklists when preparing to deploy.

8.6.1. The Shaw Aircrew Chemical Defense D-1 Ensemble standardized configurations are located in AFE OI 11-1.

## **Chapter 9 (Added)**

### **AIRCRAFT OPERATIONS (AO) SCHEDULING PROCESS (ADDED)**

**9.1. (Added)** The following procedures will be followed when scheduling items installed on the F-16 personnel parachutes, drogue parachutes, and survival kits for inspection/repack and time change:

9.1.1. **(Added)** 20 MXG Plans & Scheduling, and Documentation will schedule the time change against the aircraft for the parachute due removal for time change. Include in the narrative the serial number of the parachute, the nomenclature and the serial number of the installed on item due time change, and the work unit code (WUC) of the item due time change. Defer/reschedule the event using standard time change procedures.

9.1.2. **(Added)** Egress section will document IMDS (after the parachute has been physically removed from the aircraft) starting with screen #122. Do not straight line the removal or the installation in IMDS. Enter the event ID and the Work Center Event (WCE) number of the discrepancy.

9.1.3. **(Added)** Egress will process screen #122 (to show documentation for removal/installation) and screen #701 (Inspection/Time Change Forecast) for the removed parachute assembly. Egress personnel will print these inquiries out and hand-carry them to the AO Section with the removed parachute and or survival kit. NOTE: AO may not accept personnel parachutes, drogue parachutes, or survival kits unless 9.1.1., 9.1.2., and 9.1.3. are met.

CLAY W. HALL, Colonel, USAF  
Commander

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References (Added)***

AFI 21-101\_COMBATAIRFORCESUP\_SHAWAFBSUP1, *Aerospace Equipment Maintenance Management*, 12 April 2012

***Prescribed Forms***

No prescribed forms are implemented by this publication.

***Adopted Forms (Added)***

AFTO Form 22, *Technical Manual (TM) Change Recommendation and Reply*

AF Form 623A, *On-The-Job Training Record-Continuation Sheet*

***Abbreviations and Acronyms (Added)***

**ACES**—II—Advanced Concept Ejection Seat

**AO**—Aircraft Operations

**AFEO/S**—Aircrew Flight Equipment Officer/Superintendent

**AFRIMS**—AF Records Information Management System

**AQL**—Acceptable Quality Levels

**CUI**—Combined Unit Inspection

**DSV**—Detected Safety Violations

**ENVIS**—Evaders Night Vision Imaging System

**FERMS**—Flight Equipment Records Management System

**GPS**—Global Positioning System

**HAZCOM**—Hazardous Communication

**HDU**—Helmet Display Units

**HVI**—Helmet Vehicle Interface

**IDEA**—Innovative Development through the Employee Awareness

**IMDS**—Integrated Maintenance Data System

**IPI**—In-Process Inspection

**LBI**—Low Battery Indicator

**MFR**—Memorandum for Record

**OCR**—Office of Collateral Responsibility

**OTS**—Over the Side

**QAP**—Quality Assurance Program

**RDS**—Records Disposition Schedule

**SAV**—Staff Assistance Visit

**SIPR**—Secure Internet Protocol Router

**TDV**—Technical Data Violations

**UC**—Universal Connector

**UCR**—Unsatisfactory Condition Reports

**UDM**—Unit Deployment Manager

**UTM**—Unit Training Manager

**WCE**—Work Center Event

## Attachment 4 (Added)

## PRE-DEPLOYMENT PREPARATION CHECKLIST

Table A4.1. Pre-Deployment Preparation Checklist.

<b>1. Pre-Deployment Preparation</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>
<b>1.1. Personnel Training</b>			
1.1.1. Are all deploying personnel qualified on both the 9MM and M-16 or M-4?			
1.1.2. Are personnel trained to process hazardous cargo?			
1.1.3. Do the personnel deploying possess the proper skill levels?			
1.1.4. Are personnel trained on ACCA preparation, set-up, operation, safety, work-rest cycles and evacuation procedures?			
1.1.5. Are personnel trained on programming CSEL/PRC-112 radios?			
1.1.6. Are personnel trained on issuing aircrew weapons?			
1.1.7. Are personnel trained on inspection and maintenance of Night Vision Goggles (NVGs)?			
1.1.8. Does personnel training meet all requirements in the MTLs?			
1.1.9. Are personnel current in all essential ancillary and wartime skills indentified in Career Field Education and Training Plan prior to deployment?			
<b>1.2. Supervision/Management</b>			
1.2.1. Are the items listed below on hand for deployment and employment operations:			
1.2.1.1. Crewmember data sheets (fitting and sizing information)			
1.2.1.2. AF Form 522			
1.2.1.3. Weapons Courier letter			
1.2.1.4. Ammunition Courier Letter			
1.2.1.5. Weapon Listing by serial number and butt number			
1.2.1.6. Are copies of AF Form 105 (or equivalent) available for all weapons deploying?			
1.2.1.7. Has the Pre-Embarkation inspection been accomplished for deploying weapons?			

1.2.1.8. Authorization to Bear Arms letter from the commander?			
1.2.1.9. Clearing Barrel Supervisor appointment letter and accidental discharge form?			
1.2.1.10. Use of Deadly Force letter?			
1.2.1.11. Has coordination been accomplished with LRS to obtain weapons?			
1.2.1.12. Has coordination been accomplished with AFK to obtain ammo?			
1.2.1.13. Has supply been contacted with/for the following items? Equipment/weapons/ammunition). Identify equipment deploying with use code "A" to Electronic Maintenance System (EMS). Identify deployed custodians. Contact EMS for deployed CA/CRL. Inventory deploying equipment. Deployed supply accounts and procedures			
1.2.1.14. Have equipment inspections been reviewed for due dates and inspections accomplished as required?			
1.2.1.15. Do any AFE equipment LIMFAC/Shortfalls exist?			
1.2.1.16. Is any of the following specific AFE required/configured for the deployment?			
1.2.1.17. Cold weather equipment			
1.2.1.18. Hot weather equipment			
1.2.1.19. Anti-Exposure Suits (worn for deployment)			
1.2.1.20. NVGs with Mounts			
1.2.1.21. Aircrew Laser Eye Protection, (Reference AFI 11-301 V4)			
1.2.1.22. ANVIS Scopes			
1.2.1.23. Aircrew Chemical Warfare Equipment			
<b>1.3. Personnel Readiness Issues</b>			
1.3.1. Do all personnel have the following items completed, on-hand and current:			
1.3.1.1. Powers of Attorney			
1.3.1.2. Wills			

1.3.1.3. Dog Tags			
1.3.1.4. Government Travel Card			
1.3.1.5. Mobility Bags			
1.3.1.6. Uniforms			
1.3.1.7. Medications			
1.3.1.8. Immunizations			
1.3.1.9. Line Badge			
1.3.1.10. Gas mask inserts/glasses (if required)			
<b>1.4. Equipment Pre-deployment requirements</b>			
1.4.1. Aircrew Weapons and ammunition			
1.4.2. Life Preservers installed (as required)			
1.4.3. Personnel Lowering Device (installed as required)			
1.4.4. Survival Kit/Vest configured for AOR requirements			
1.4.5. Piddle Packs/ relief devices			
1.4.6. Air Sickness Bags			
1.4.7. Anti- G Suit			
1.4.8. Do aircrew require any specific clothing for the deployment?			
1.4.9. Combat Radios and support equipment			
1.4.10. Ensure classified material is controlled			
<b>1.5. Other Considerations</b>			
1.5.1. Are AFE personnel be part of the ADVON/Enroute Support Team?			
1.5.2. Have all manning requirements been filled per UTC/MANFOR?			
1.5.3. Do items need to be removed from survival kit to accommodate items in the deployed location (sleeping bags, water, rations, climate and terrain conditions)?			

1.5.4. Has coordination been accomplished with other units deploying to the same location?			
1.5.5. Has the Base Support Plan been reviewed for the deployed location?  Work facilities, equipment storage, weapon security, munition support  Supply  Transportation			
Have the SPINS and Operation Order been reviewed for pre-deployment and deployment location requirements?  Get from Intelligence/ SIPR access  GPS usage.  CSAR Radio employment and use.  Rescue Assets what and where.  Aircrew Laser Eye Protection requirements  Threat assessment i.e. CBRN			
1.5.7. Have beacons been configured IAW the SPINS for timed/auto mode?			
1.5.8. Have arrangements for the following been accomplished:  Equipment from Precision Measurement Equipment Laboratory (PMEL).  Forklift/vehicle for pallet/equipment movement.			
Have AFE items been sanitized of unit identification and names?			



## Attachment 5 (Added)

## DEPLOYMENT AND MOBILITY PACKAGE CHECKLIST

Table A5.1. Deployment and Mobility Package Checklist.

Deployment and Mobility Package	Yes	No	N/A
<b>1. Initial Actions:</b>			
1.1. Are all personnel accounted for?			
1.2. Has everyone signed in and has strength reporting been completed?			
1.3. Are there any initial LIMFAC shortfalls that need to be identified to squadron leadership?			
1.3.1. If so, does the AF Form 4006, Unit Deployment Shortfalls, need to be coordinated with the appropriate agency?			
1.4. Do any logistical support issues need to be worked with the following agencies? Munitions Egress PMEL Hazardous Material Cargo Shipment Plans and Scheduling			
1.5. Is the deployment package dependant/ independent of other units?			
1.6. Is the ACCA equipment required for the deployment?			
1.7. Are all test equipment inspections current?			
1.8. Are all mobility parachutes, kits LPU's, etc inspected?			
1.9. Are all packing list current?			
1.10. Are all load lists current?			
1.11. Has all hazardous cargo been marked properly and ready for shipment?			
1.12. Are Transportation Control Numbers for all deploying equipment documented and sent with the deploying AFE person?			
1.13. Has all hazardous cargo been marked properly and ready for shipment?			
1.14. Are MSDSs available for all deploying assets? (as required)			
<b>2. Equipment Requirements:</b>			
2.1. Are the following items available in the deployment package?			
2.1.1. Aircrew Data Sheets			
2.1.2. Technical Orders			
2.1.3. Weapons loading and clearing procedures			
2.1.4. Weapons parts kits (signed out from Combat Arms and Training Management, if required)			
2.1.5. Spare kit and Chute (if required)			
2.1.6. "B" Anti-G suit as required			

2.1.7. Spare flight gloves			
2.1.8. Piddle Packs/ bladder relief devices			
2.1.9. Ear Plugs			
2.1.10. Spare G- suits			
2.1.11. Spare LPUs			
2.1.12. Spare Helmets			
2.1.13. Spare Masks			
2.1.14. Spare Harnesses			
2.1.15. D- Bags			
2.1.16. Anti-Exposure Suits			
2.1.17. Batteries (as required)			
2.1.18. Packing table (45'L x 3'H x 3'W)			
2.1.19. Automated Civil Engineering System II Packing fixture			
2.1.20. Sewing machine w/chair			
2.1.21. Hydro thermograph			
2.1.22. Scale (Bottles)			
2.1.23. Heat seal machine			
2.1.24. Air Compressor			
2.1.25. Vacuum			
2.1.26. CTK			
2.1.27. Office supplies			
2.1.28. Hazmat kit			
2.1.29. Various fabrics/materials/webbing			
2.1.30. Sewing threads/needles			
2.1.31. Velcro's			
2.1.32. Humidifier			
2.1.33. Generator			
2.1.34. Laptop w/printer			
2.1.35. Small explosive locker			
2.1.36. Surge protector			
2.1.37. Dry-erase board			
2.1.38. Anti-exposure suit air tester			
<b>2.2. PMEL Equipment</b>			
2.2.1. RCTS-003 Radio tester			
2.2.2. ANV 20/20 Tester			
2.2.3. ANV 126 Tester w/required adapters			
2.2.4. Torque Wrenches			
2.2.5. Torque Screwdrivers			
2.2.6. NVG Tools			
2.2.7. Pull Tester			
2.2.8. Manside Tester/CAST/CAST+/SCOT Tester			
2.2.9. Scale			
2.2.10. Purge Kit w/bottle			
2.2.11. Oxygen bottle/Air bottle (hydrostatic tested C/W prior to			

shipping)			
2.2.12. Joint Helmet Mounted Cueing System (JHMCS) Tester			
<b>2.3. Additional Equipment</b>			
2.3.1. Office Supplies			
2.3.2. Computer/Printer/Bar code printer			
2.3.3. Compact Disks to include: ACCEPL, AFLGSEPL, Federal Logistic, AFEPL.			
2.3.4. Copy of all shop letters and programs			
<b>2.4. Cargo:</b>			
2.4.1. Are Hazardous cargo documents available?			
2.4.2. Are Load Lists available?			
2.4.3. Are Packing Lists available?			
2.4.4. Are hazardous cargo labels (UN Labels) on all required items?			
2.4.5. Are placards for pallets available and up to date?			
2.4.6. Do personnel have the proper safety equipment to pack/build pallets?			
2.5. Has coordination been accomplished with egress for support during all portions of the deployment?			
2.6. Is all equipment ready for the launch? Water bottles Piddle packs/bladder relief devices and extra zip lock bags Ear Plugs LPUs installed (if required) Personal Lowering Devices installed (if required) Aircrew flash light batteries			

## Attachment 6 (Added)

## EMPLOYMENT OPERATIONS CHECKLIST

Table A6.1. Employment Operations Checklist.

Employment Operations	Yes	No	N/A
<b>1. AFE Shop/Facility:</b>			
1.1. Has an AFE shop area been established?			
1.1.1. Has an area for equipment storage been established?			
1.1.1.1. Is all required test equipment available and in-place in the equipment area? (See shop set-up checklist)			
1.1.1.2. Are the following items available in the AFE facility?			
1.1.1.2.1. Phone line:			
1.1.1.2.2. Fax Line:			
1.1.1.2.3. NIPRNET (Non-Secure Internet Protocol Router Network) connection:			
1.1.1.2.4. SIPRNET (Secure Internet Protocol Router Network) connection, safe for classified material:			
1.1.1.2.5. Potable water: (If not, is bottled water available?)			
1.1.1.2.6. Electrical power: (Are power converters available if required?)			
1.1.1.2.7. Heating/Cooling:			
1.1.1.2.8. Latrines:			
1.1.1.2.9. Equipment inspection area:			
1.1.1.2.10. Is the area for inspections properly configured? Padded surface Fire extinguishers Hearing protection Sand bucket for flares Flare locker Flammable locker Hazardous material collection point			
1.1.2. Has an area for post flight inspections been established?			
1.1.3. Has an area for NVG inspections and aircrew preflight been established? (See NVG area set-up checklist)			
1.1.4. Has an area for weapons issue been established? (See Weapons area set-up)			
1.1.5. Has the AFE area been established as a controlled area?			
1.1.5.1. Have required access notification signs been posted?			
1.1.5.2. Has all required coordination been accomplished with the base resource protection office for controlled area requirements?			
1.1.6. Has an AFE safety briefing been developed and personnel briefed?			
1.1.6.1. Are personnel practicing/enforcing general safety and explosive safety procedures?			

1.1.6.2. Have “Apply No Water”, Breathing Apparatus Required and Fire symbols been posted for the AFE shop and equipment area as required?			
1.1.7. Has an evacuation plan for the facility been established?			
1.1.7.1. Has a rally point been established and briefed to all personnel?			
1.1.7.2. Is a diagram posted with the evacuation route?			
1.1.7.3. Have bunkers been established for all personnel?			
1.1.7.4. Have procedures been established to account for all personnel before, during and after the facility evacuation?			
1.1.7.5. Are personnel familiar with explosive ordinance reconnaissance procedures?			
1.1.7.6. Are personnel familiar with procedures to black-out/tone-down the AFE facility?			
1.1.8. Are personnel familiar with the placement of M-8/M-9 for chemical monitoring? (if required)			
1.1.9. Has the AF Form 2047 Explosive Facility License and AF Form 68 Munitions Authorizations Record been coordinated with required agencies? (if applicable)			
1.1.10. If facility has special training required such as blowers/airlocks, etc. Are personnel familiar with the procedures to operate the equipment?			
1.1.11. Is the equipment properly stored? Either inside a building or covered with plastic?			
1.1.12. Are AFE personnel familiar with Force Protection Condition procedures in place to protect equipment and personnel?			
1.2.1. Has an alternate location been established for AFE operations?			
1.2.1.1. Are building numbers, phone numbers and fax numbers available for the alternate location?			
1.2.1.2. Are extra AFE equipment and mobility packages from additional units pre-positioned at the alternate location?			
1.2.1.3. Is an extra copy of important information such as fitting sheets, equipment cards etc....kept at the alternate location?			
<b>2. Equipment:</b>			
2.1. Is equipment adequately dispersed and protected?			
2.1.1. If equipment is stored outdoors, is the equipment/pallets covered and bunkered if possible?			
2.1.2. Are all personnel proficient in emergency re-order procedures for AFE equipment?			
2.1.2.1. Are procedures in place to inform AOR leadership of AFE equipment shortages and shortfalls?			
2.1.3. Has all deployed equipment arrived in serviceable condition?			
2.1.3.1. Is equipment stored properly on racks or other devices?			

2.1.3.2. Have all aircraft arrived and are they configured as required?			
2.1.4. Is all AFE equipment combat configured prior to the first mission?			
2.1.5. Are anti-exposure suits available and individually fitted and worn when directed?			
2.1.6. Are life preservers worn when directed?			
2.1.7. Are personnel lowering devices (PLDs) available and installed when directed?			
2.1.8. Is Aircrew Chemical, Biological, Radiological, and Nuclear Equipment serviceable and individually issued/fitted?			
2.1.9. Have new chemical warfare filters been installed in the ACBRN equipment (if required)?			
2.1.10. Is test equipment set-up and serviceable?			
2.1.11. Are CTKs available to support all deployed equipment and controlled as required?			
<b>3. Supply:</b>			
3.1. Have accounts been established with the following agencies?			
3.1.1. Maintenance Group – for AFE fly dollar requirements			
3.1.2. Medical supply			
3.1.3. Base supply issue and receiving			
3.1.4. Are re-supply procedures in place?			
<b>4. Flying Operations:</b>			
4.1. Are AFE personnel aware of the daily flying window and are personnel available to support operations?			
4.2. Are AFE personnel kept abreast of changes to the flying operations?			
4.3. Is required information coordinated with intelligence forces in regards to Combat Radios?			
4.5. Are procedures in place for AFE to respond for RED BALLs and aircraft-installed equipment inspections?			
4.6. Have procedures been established to implement C-CW and/or C-BW CONOPS operations if required? (See C-CW and/or C-BW CONOPS Checklist, as required)			
<b>5. Personnel:</b>			
5.1. Do AFE personnel know the locations of the following agencies?			
5.1.1. Base Supply:			
5.1.3. Fire Department:			
5.1.4. Contracting:			
5.1.5. CE Readiness:			
5.1.6. Hospital or Expeditionary Medical Support:			
5.1.7. Medical Supply:			
5.1.8. Transportation:			
5.1.9. Petroleum, Oils, and Lubricants (for vehicle fuel):			

5.1.10. Egress:			
5.1.11. Plans and Scheduling:			
5.1.12. Aircraft Maintenance Unit:			
5.1.13. Squadron Operations:			
5.1.14. EOC/Installation Control Center:			
5.1.15. Security Forces and Armory:			
<b>6. Transportation:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
6.1. Has a vehicle been procured for AFE operations?			
6.1.1. Does the vehicle provide overhead protection for C-CW CONOPS requirements?			
6.2. Are personnel familiar with vehicle “tone-down” procedures?			
6.3. Are Self-Aid Buddy Care kits available in the vehicle?			
6.3.1. Is litter available for transporting injured personnel?			
6.4. Are alarm condition flags available in the vehicle?			
6.5. Is a radio available for the vehicle operator?			
6.6. Has a map of the base been procured to identify important locations?			
6.7. Has a forklift been coordinated to move equipment? (if required)			
<b>7. Night Vision Goggles:</b>			
7.1. Are procedures in place to issue and track NVGs?			
7.2. Is all required equipment on hand to support NVG operations?			
7.2.1. Specialized night vision tool kit			
7.2.2. ANV-20/20 Tester			
7.2.3. ANV-126 Tester and adapter plates			
7.2.4. Purge kit and nitrogen bottle			
7.2.5. NVG booth or room for testing			
7.2.6. Lens paper, cleaning equipment			
7.2.7. Chem lights			
7.2.8. Finger light and batteries			
7.2.9. NVGs			
7.2.10. NVG brackets (JHMCS NVG mount as required)			
7.2.11. NVG batteries			
<b>8. Weapons:</b>			
8.1. Are the following items on hand to support weapons issue/turn-in operations?			
8.1.1. Clearing barrel, catch tray, inspection records, matting eye protection			
8.1.2. Issue Area Set-up IAW AFI 31-229			
8.1.3. Controlled area signs			
8.1.4. Authority to bear firearms letter			
8.1.5. Anti-robbery procedures			
8.1.6. Deployed munitions coordination with AFK			
8.1.7. Issue and turn-in procedures			

<b>9. Communication:</b>			
9.1. GPSs			
9.1.1. Are GPSs secured after they have been loaded?			
9.1.2. Have GPSs been initialized for the deployed location?			
9.1.3. Do the GPSs have the latest version of software loaded?			
9.1.4. Are GPSs tracked by serial number for accountability?			
9.2. CSAR survival radios			
9.2.1. Is a laptop computer available for loading the radios?			
9.2.2. Are cables available to load the radios?			
9.2.3. Is the software available to load the radios?			
9.2.4. Are spare parts available for the radios?			
9.2.5. Are cover plates available for the radios?			
9.2.6. Is the required information tracked for Intel and AFE?			
<b>10. Additional Equipment:</b>			
10.1. ANVIS Scopes (as required)			
10.1.1. Are ANVIS Scopes installed in the vest/kit?			
10.1.2. Are ANVIS scope serial numbers tracked for accountability?			
10.2. Aircrew Laser Eye Protection (ALEP):			
10.2.1. Are ALEP devices serviceable and threat equivalent?			
10.2.2. Are issue/turn-in procedures established for ALEP?			
10.2.3. Are ALEP devices serial numbers tracked for accountability?			
<b>11. Home Station, AOR and Higher Headquarters Communication</b>			
11.1. Has the AOR superintendent been informed of following information? 1. Deployed unit phone number/fax/STU III and tactical phone numbers? 2. Deployed unit email (SIPRNET and NIPRNET) addresses? 3. Personnel and strength information? (this information may need to be transmitted via SIPRNET) Equipment shortages? (this information may need to be transmitted via SIPRNET)			
11.2. Has the AOR Superintendent placed the deployed unit on all distribution lists to receive messages and email traffic from the AOR and higher headquarters?			
11.3. Has the deployed unit's home station been informed of the following information? (a) Deployed unit phone number/fax/STU III and tactical phone numbers? Deployed unit email (SIPRNET and NIPRNET) addresses?			
11.4. Has the home unit placed the deployed unit on the distribution list or coordinated other means to receive the latest messages, T.O. changes and other information effecting the deployed unit personnel and equipment?			



<b>12. “BUG OUT” Relocation Procedures</b>			
12.1. Pre-determine key equipment items to be removed during bug-out operations. Emphasis placed on mission essential equipment i.e. NVG, weapons, helmets, JHMCS, ALEP (fitted, high demand, short supply items).			
12.2. Facilitate methods and means to expedite removal.			
12.3. Evacuate personnel and equipment with what can be safely carried in single exit.			